

CLAIMS

What I claim as my invention is:

1. An apparatus configured to diagnose a host computer system, said host computer system including at least one processor, an operating system, and one or more memory arrays, said apparatus comprising:
 - (a) means for determining a first number, wherein said first number represents a maximum number of diagnostic processes that can be simultaneously supported by said operating system,
 - (b) means for detecting an amount of available memory in the host computer system,
 - (c) means for calculating a second number, wherein said second number represents a maximum number of diagnostic processes that can be supported by said amount of available memory,
 - (d) means for running multiple diagnostic processes, wherein the number of said multiple diagnostic processes is equal to or less than the lower of said first number and said second number, and wherein said multiple diagnostic processes include at least scanning for viruses and scanning for corrupted files,
 - (e) means for repeating said determining, said detecting, said calculating, and said running, in that order, until a given number of data files have been scanned.
2. A method for diagnosing a host computer system, said host computer system including at least one processor, an operating system, and one or more memory arrays, comprising the steps of:

- (a) detecting an amount of available memory on the host computer system,
- (b) calculating a first number, wherein said first number represents a maximum number of diagnostic processes that can be supported by said amount of available memory,
- (c) determining a second number, wherein said second number represents a maximum number of diagnostic processes that can be simultaneously supported by said operating system,
- (d) running a number of multiple diagnostic processes, wherein the number of said multiple diagnostic processes is equal to or less than the lower of said first number and said second number.

3. The method of claim 2, wherein said multiple diagnostic processes include scanning for computer viruses.

4. The method of claim 2, wherein said multiple diagnostic processes include scanning for corrupted files.

5. The method of claim 2, wherein said multiple diagnostic processes are executed simultaneously.

6. The method of claim 2, further including:

(e) repeating steps (a) through (d) until a predetermined condition has been satisfied.

7. The method of claim 6, wherein said predetermined condition is that a given amount of data files have been scanned.

8. The method of claim 6, wherein step (e) occurs at predetermined time intervals.

9. A method for diagnosing a host computer system, said host computer system including at least one processor, an operating system, and one or more memory arrays, comprising the steps of:

- (a) detecting an amount of available memory in the host computer system,
- (b) calculating a maximum number of diagnostic processes that can be supported by said amount of available memory,
- (c) running multiple diagnostic processes, wherein said multiple diagnostic processes include scanning for computer viruses or corrupted data files, and wherein the number of said multiple diagnostic processes is less than or equal to the maximum number of processes calculated in step (b).

10. The method of claim 9, wherein said multiple diagnostic processes are executed simultaneously.

11. The method of claim 9, further including:

(d) repeating steps (a) through (c) until a predetermined condition has been satisfied.

12. The method of claim 11, wherein said predetermined condition is that a given amount of data files have been scanned.

13. The method of claim 11, wherein step (d) occurs at predetermined time intervals.

14. The method of claim 9, wherein
step (b) further includes determining a maximum amount of diagnostic processes that can be simultaneously supported by said operating system and
wherein said number of said multiple diagnostic processes is also less than or equal to said maximum amount of diagnostic processes that can be simultaneously supported by said operating system.

15. A method for diagnosing a host computer system, wherein said diagnosing includes virus scanning, said host computer system including at least one processor, an operating system, and one or more memory arrays, comprising the steps of:

(a) determining a maximum number of diagnostic processes that can be simultaneously supported by said operating system,

(b) running multiple diagnostic processes, wherein said multiple diagnostic processes include scanning for computer viruses or corrupted data files, and wherein the

number of said multiple diagnostic processes is less than or equal to the maximum number of processes determined in step (a).

16. The method of claim 15, wherein said multiple diagnostic processes are executed simultaneously.

17. The method of claim 15, further including:

(c) repeating steps (a) through (b) until a predetermined condition has been satisfied.

18. The method of claim 17, wherein said predetermined condition is that a given amount of data files have been scanned.

19. The method of claim 17, wherein step (c) occurs at predetermined time intervals.

20. The method of claim 15, wherein
step (b) further includes calculating a maximum number of diagnostic processes that can be supported by a detected amount of available memory and
wherein said number of said multiple diagnostic processes is also less than or equal to said maximum number of diagnostic processes that can be supported by said amount of available memory.